



The International Black-faced Spoonbill Census 2008 and 2009

The Hong Kong Bird Watching Society

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The International Black-faced Spoonbill Census 2008 & 2009

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黑臉琵鷺全球同步普查
2008 及 2009

香港觀鳥會有限公司
(認可公共性質慈善機構)

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The International Black-faced Spoonbill Census 2008 and 2009

English Report

The International Black-faced Spoonbill Census 2008 and 2009

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Abstract

The annual International Black-faced Spoonbill Census took place on 11-13 January 2008 and 9 -11 January 2009. These censuses aimed to provide comparable figures on an annual basis to assess the health of the wintering population and its distribution range. A total of 2,065 and 2,041 Black-faced Spoonbills were counted in 2008 and 2009 respectively. The total figure broke 2,000 for the first time in 2008 since the inception of the census in mid-1990s. There was a big increase of about 22% in 2008 but a small decrease of 1% in 2009 from the previous year. Tsengwen River estuary of Tainan and Deep Bay of Hong Kong and Shenzhen are still the two biggest wintering grounds of this globally endangered species.

Introduction

Black-faced Spoonbill *Platalea minor* is listed as a globally endangered species due to its small known population and restricted range (Collar *et al.* 1994, BirdLife International 2000, 2004). This species inhabits along the coastal areas on the eastern fringe of Asia (Hancock *et al.* 1992, del Hoyo *et al.* 1992, Yu and Swennen 2004). This species started to attract conservationist's attention in early 1990s when fewer than 300 individuals were presented in a few sites in the East Asian region (Kennerley 1990). Subsequently, this annual census was organized in 1993 to assess the wintering population of the Black-faced Spoonbills. The wintering population was found to be recovering through natural population expansion and conservation efforts in some of the sites. Numbers exceeded 1,000 individuals in 2003 and over 1,500 in 2006 (Yu and Wong 2006)

This census was listed as high priority by Severinghaus *et al.* (1995) because it proved to be an effective means for providing annual figures on the population and distribution of wintering Black-faced Spoonbills through international cooperation. The Hong Kong Bird Watching Society, an affiliate of BirdLife International, has

started coordinating this census since 2003 onwards. This report is to present results of the censuses conducted in January 2008 and 2009.

Method

The census periods were chosen as 11-13 January 2008 and 9-11 January 2009 in the winters of 2007-08 and 2008-09. The census are always chosen in mid-winter when the spoonbill populations seem to be stable during this time of the year and the dates chosen when there will be high tides necessary for the counting in Xuan Thuy of Vietnam and Mai Po of Hong Kong. Map 1 shows the area covered by the census and also sites with wintering spoonbills in this winter. Surveys were also carried out in areas where there had been previous Black-faced Spoonbill sighting reports and are found to be suitable for the spoonbills. Guidelines were sent to surveyors before the census for technical basis. Field counts were done in a synchronized manner, making use of binoculars and telescopes. Some other counts in the mid-winter period are also presented in this report.

Counting of the spoonbills relied on voluntary efforts from counters including experienced bird watchers, conservationists, researchers and ornithologists. The census results in Fujian, Hainan, Hong Kong, Japan, Macao, Taiwan and Vietnam were summarized by coordinators in the respective regions. The counts in South Korea and some parts of China mainland coast, Thailand and the Philippines were carried out by individuals sending in individual reports.

Some sites are in close proximity, such as Mai Po in Hong Kong and Futian in Shenzhen. Spoonbills can fly between these two sites within an hour. Hence, counts in these sites were conducted in synchrony.

Results and discussion

Overview

The 2008 census gave a total figure of 2,065 Black-faced Spoonbills in this East Asian region, a new high for this globally endangered species. Then the number dropped slightly to 2,041 in the 2009 census (table 1). The increase was a significant 22% from 2007 to 2008 and the decrease from 2008 to 2009 was only 1.2%. These figures are all-time high records for this species, at over 2,000 individuals. It took five years for the spoonbills to double their numbers from a total of over 1,000 individuals in 2003 (figure 1). Since the commencement of this census, the number of

the spoonbills have been increasing at an average rate of 13% (SD: 10%, table 9), decreases were only noted in the winters 1996-97, 1998-99 and 2009 census (figure 1).

The spoonbill's number increased in Taiwan and in mainland China and Hainan Island. The increase of the birds in Taiwan was as high as 30% from 2007 census to 2008 census (table 2). In the same year the increase of the birds in mainland China and Hainan Island also reached 27% (table 4). In the 2009 census, although Taiwan still maintained high figures, other places such as Deep Bay of Hong Kong and Shenzhen, mainland China and Hainan Island recorded decreases. More details and discussion of numbers and trends in each place are listed below.

Black-faced Spoonbills were found wintering in 43 and 44 sites in census 2008 and 2009 respectively, highly consistent with the 44 sites recorded in 2007 census. Surveys were conducted in all the main sites to minimize the possibility of missing out some wintering birds in this census. As the total known population has been stable in a level of 2,000 individuals, the 1% population level is set at 20 individuals. Sites with more than 20 birds present could be regarded as important sites for the Black-faced Spoonbills and this will be discussed in detail below.

Taiwan

2008: 1,030 birds **2009:** 1,104 birds

Taiwan has always been the largest winter congregation site of the Black-faced Spoonbill. There are two noteworthy points in the latest censuses, firstly the numbers broke through the level of a thousand individuals (table 2), and secondly, it represented an increase of more than 30% over the figure of 2007 census. The biggest wintering ground of the spoonbills in Taiwan is still the Tsengwen River estuary area, in Tainan including Chi-ku and Sitsao, where a total of 1,011 and 1,081 individuals were recorded in 2008 and 2009 respectively, constituting 50% and 54% of the world population. Apart from Tainan, small numbers were also present in several coastal sites of Taiwan such as Chiayi, Ilan, Kaoshiung, Pingtung, Taitung and outlying islands including Penghu and Kinmen (table 1).

Pearl River Estuary (including Deep Bay in Hong Kong and Shenzhen, Taipa in Macao)

2008: 419 birds, including 369 birds in Deep Bay and 50 birds in Taipa

2009: 387 birds, including 335 birds in Deep Bay and 52 birds in Taipa

The numbers of the Black-faced Spoonbills in the Pearl River Estuary area fluctuated in these two censuses, with an increase of 4% in 2008 and then a decrease

of 8% in 2009. Such fluctuation mainly came from the figures in the Deep Bay area, while the numbers in Taipa, Macao were more stable (table 3). Coverage in this area of both censuses was the same as the other previous censuses and many sites in the Deep Bay area such as Mai Po Nature Reserve, Lok Ma Chau fishponds, Tsim Bei Tsui intertidal area, the Hong Kong Wetland Park and Futian National Nature Reserve, Shenzhen were surveyed in all three counting days. The Deep Bay area supported at least 17% of the world population of the Black-faced Spoonbill.

Although the numbers of the spoonbills in Taipa, Macao have become stable, the situation of their habitat is still not optimistic. The area is still facing pressure from tourism development. This site supported 2.5% of the world population of the spoonbill.

China Mainland and Hainan Island

2008: 313 birds **2009:** 247 birds

The numbers of the Black-faced Spoonbills recorded in mainland China and Hainan Island also fluctuated in these two censuses, same as the situation in the Pearl River estuary. There was a significant increase of 27% in 2008 census over the total of 247 birds in 2007 census but the number shrunk back to the same figure of 247 individuals in 2009 census. The total of 313 Black-faced Spoonbills in the 2008 census is a new high for China mainland and Hainan Island area (table 4). From the figure of 2009 census the mainland China and Hainan Island supported at least 12% of the world population.

Three key sites for the wintering Black-faced Spoonbills in China mainland and Hainan Island have been identified from previous censuses: Xinhua Bay of Fujian province, Haifeng of Guangdong province and Changhua River estuary (previously called Beili Bay) of Hainan Island. In 2008 the numbers of the Black-faced Spoonbills found were 112 at Xinhua Bay, 98 at Haifeng and 82 at Changhua River estuary. All these sites saw decreases in the 2009 census with 69 birds at Xinhua Bay, 71 birds at Haifeng and 67 birds at Changhua River estuary. Decreases in these sites and in the Deep Bay area of Pearl River Delta constituted the decline in the total number of the Black-faced Spoonbills in the 2009 census. Some small numbers of the wintering Black-faced Spoonbills were also found scattered in several sites along the south and southeastern China coast, details as shown in table 1.

Red River Delta, Vietnam

2008:49 birds, **2009:**63 birds

The numbers of Black-faced Spoonbills in the Red River Delta area bounced back from a low figure of 45 birds in 2007 (table 5). With a general increase of the world population, this could be a natural increase of the spoonbills in the area. All the birds were recorded in the Xuan Thuy area. This is an encouraging sign for the conservation of both the spoonbills and the area. These figures comprised 2.5% to 3% of the world population. Thai Thuy was also surveyed in the 2009 census but no spoonbills was found in this area.

Japan

2008:224 birds, **2009:** 215birds

The previous highest number of wintering Black-faced Spoonbills in Japan was 189 in 2007 census, but the numbers broke two hundred in 2008 with 224 birds and again with 215 birds in 2009 (table 6). There was an increase of 19% from the figure of 2007 to 2008. These figures constituted about 10% of the world population. Most of the records came from Kyushu, western Japan and the largest flock of Black-faced Spoonbills in Japan was recorded in the area of the New Port and Shira-kawa River estuary, Kumamoto, with a figure of 47 birds in 2008 and 39 birds in 2009 (table 1).

Republic of Korea

2008: 28 birds, **2009:** 25 birds

The number of the Black-faced Spoonbills in Jeju Island has been stable in the level of around 20 birds since year 2000 (table 7). There were small increases in the recent winters. In Jeju, the birds were recorded in Seongsanpo and Hado-ri. These total numbers represented at least 1% of the world population.

Thailand

2008: 2 birds, **2009:** 3 birds (outside the census period)

Records from Thailand in these two censuses came from Laem Pak Bia, Phatchaburi (table 1) and records of a single bird were found in this area in some previous censuses. This indicates that there might be a small number of Black-faced Spoonbills wintering in the area regularly.

The Philippines

2008: none report, **2009:** 1 bird (outside census period)

Black-faced Spoonbills were irregularly recorded in the Philippines. One reason is that Philippines is not a main wintering area and another possible reason is that there are only very few bird watchers active in the country. Therefore coverage of the survey, especially for the wetland areas, is very low and yielded very few records of

the spoonbills. One Black-faced Spoonbill was seen and photographed at Candaba, Pampanga on 17 January 2009, where there is a less disturbed freshwater wetland. Any report of the Black-faced Spoonbill in this country is very much welcome in the future.

Conclusion

The number of Black-faced Spoonbills had increased and then decreased in the two latest censuses. The extent of increase in the census of 2008 is higher than the decrease of 2009 census making the general trend an increasing one. The average increase since the commencement of this census still maintains at 13% (table 8). This figure is an encouraging sign of recovery for this globally endangered species. However, the decrease in the numbers in the census 2009 is of conservation concern. Although there could be displacement of some wintering birds from sites along the southern China coast to Taiwan and Red River Delta of Vietnam, the number of wintering population in Japan is on the decline. On the other hand, no sign of failure of breeding has been noted in the 2008 summer breeding season in South Korea. With all the major wintering sites covered during the censuses, it is unlikely that a large numbers of the spoonbills had been missed out. Therefore, it is still unknown what caused this decline.

Another noteworthy point is that, 65-70% of the wintering Black-faced Spoonbills in these two censuses still congregated only in two major sites: Tainan and Deep Bay. Although there has been some increases in the numbers in Japan and other sites along the southern China coast, such large congregation in a just handful of sites still makes this species this species vulnerable to habitat degradation and destruction, and also to any avian disease, botulism in particular.

Sites with more than 1% (i.e. 20 individuals) of the world population of the Black-faced Spoonbills from the censuses are listed below and are considered important sites for the conservation of the spoonbills.

- Tsengwen River estuary area including Chiku and Sitsao, Tainan – 1,081 birds (54%),
- Deep Bay, Hong Kong and Shenzhen – 335 birds (17%),
- Haifeng, Guangdong – 71 birds (3.6%),
- Xinhua Bay, Fujian – 69 birds (3.5%),
- Changhua River estuary, Hainan – 67 birds (3.4%),

- Xuan Thuy, Red River Delta, Vietnam – 63 birds (3.2%),
- Taipa-coloane, Macao – 52 birds (2.6%),
- New Port and Shira-kawa River estuary, Kumamoto – 39 birds (2.0%),
- Wajiro artificial island, Fukuoka – 31 birds (1.6%),
- Seongsanpo and Hado-ri, Jeju Island – 25 birds (1.3%),
- Kagami River estuary, Kumamoto – 27 birds (1.4%),
- Imazu tidal flat, Fukuoka – 21 birds (1.1%)

To conclude, despite a small decrease of numbers in the 2009 census, the wintering Black-faced Spoonbills made a significant increase in the past few years and the number first broke the benchmark of 2,000 individuals in 2008 and again in 2009. The trend from late 1980s to now is remarkably good for the survival of this species. However, this species is dependent on just a few small pockets of intertidal mudflat along the coast of the East Asian region, and their well-being is under huge pressure from habitat degradation and destruction. Therefore, protecting the intertidal area is of key importance to the conservation of the spoonbills. Another issue of great concern is the spoonbill's breeding and habitat conditions. Very little is known in this respect but it has a direct impact on the number of the wintering populations. Thus, survey in North Korea is of utmost priority when opportunity arises.

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2008 and 2009**

黑臉琵鷺全球同步普查 2008 及 2009

Chinese Report
中文報告

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(認可公共性質慈善機構)

撮要

2008 和 2009 年度的黑臉琵鷺全球同步普查分別於 2008 年 1 月 11 至 13 日和 2009 年 1 月 9 至 11 日期間進行, 藉每年進行同類調查蒐集數據, 以了解越冬種群的最新情況及其分布範圍。2008 和 2009 年的普查分別錄得 2,065 和 2,041 隻黑臉琵鷺, 是這項普查自九十年代中期展開以來該鳥種的數目首次突破二千隻。按年度計算, 2008 年數目增幅達 22%, 而 2009 年則微跌 1%。這全球瀕危鳥種的越冬种群, 仍集中於台灣台南曾文溪口和香港與深圳間的后海灣這兩個越冬地點。

引言

黑臉琵鷺 *Platalea minor* 种群細小, 加上分布範圍狹窄, 因此被列入全球受脅鳥種名單 (Collar *et al.* 1994, 國際鳥盟 2000, 2004)。這個鳥種棲息於東亞沿海地區 (Hancock *et al.* 1992, del Hoyo *et al.* 1992, Yu and Swennen 2004)。1990 年代初, 黑臉琵鷺全球數目少於三百隻, 並僅在東亞幾個地點錄得, 從此在保育方面受到廣泛關注 (Kennerley 1990, Dahmer and Felley 2000)。自從 1993 年開始, 每年冬季都有進行全球同步普查, 以評估黑臉琵鷺的越冬种群狀況 (Collar *et al.* 1994, Baillie and Groombridge 1996, BirdLife International 2000)。因應種群的自然增長和一些地點所付出的保育努力, 黑臉琵鷺的种群在 2003 年上升至超過 1,000 隻, 於 2006 年更超過 1,500 隻 (Yu and Wong 2006)。

這項普查並被劉小如等 (1995) 列入為優先保育次序, 因為這樣的國際協作調查已證實為有效的工具, 提供越冬黑臉琵鷺數量和分佈資料。國際鳥盟支會香港觀鳥會於 2003 年起開始統籌該全球同步普查。本報告會詳述 2008 和 2009 年一月所進行的普查結果。

普查方法

2007-08 及 2008-09 兩個冬季內, 普查分別選擇於 2008 年 1 月 11 至 13 日和 2009 年 1 月 9 至 11 日期間進行。日期選擇於隆冬時份, 皆因琵鷺數量於冬季中期較為穩定, 而且香港米埔和越南春水 (紅河口國家公園) 的數點必須於潮水高漲下進行。地圖 1 顯示全球同步普查的進行地點, 以及這年冬季黑臉琵鷺的越冬地點。普查亦會在過往錄得黑臉琵鷺和適合黑臉琵鷺的生境進行。在普查之前, 本會向各參與者提供普查指引作為技術基礎。普查以同步方式, 利用雙筒和單筒望遠鏡進行。這報告也包括一些普查期間外的點算數目。

琵鷺普查有賴各地資深觀鳥者、保育工作者、研究員和鳥類學家共同義務合作。福建、海南島、香港、日本、澳門、台灣和越南的普查結果由當地的統籌員收集和整理。韓國、中國大陸部份海岸地區、泰國和菲律賓，則由個別人士提交紀錄。

有些地區距離咫尺，例如香港米埔和深圳福田，琵鷺可於一個小時內飛越這兩個地點。因此，這些地點的點算工作需要同步進行。

結果及討論

綜觀

2008 年普查期間東亞地區共錄得 2,065 隻黑臉琵鷺，為這個全球受脅鳥種的新高數字，但 2009 年普查只錄得 2,041 隻，數目輕微下降（見表 1）。2007 和 2008 年之間增幅達到 22%，而 2008 和 2009 年間跌幅相對輕微，只有 1.2%。兩次普查均錄得超過 2,000 隻，顯示黑臉琵鷺的數目在五年之間由 2003 年的 1,000 隻倍增（見表 1）。除了在 1996-97、1998-99 和 2009 年冬季有輕微下降外，普查展開以來黑臉琵鷺的數目一直上升，而平均增幅為 13% (SD : 10%, 表 9)。

中國大陸、台灣和海南島較往年錄得較多的黑臉琵鷺，而台灣的升幅尤為顯著，在 2007 年和 2008 年間普查數目上升 30%（見表 2）。同年，中國大陸和海南島的升幅亦有 27%（見表 4）。在 2009 年的普查，台灣仍然錄得較其他地區為多的黑臉琵鷺，然而其他地方諸如中國大陸、香港和深圳間的后海灣的數目均有下跌。以下是每個地區的詳盡數據和分析。

參與這兩次黑臉琵鷺全球同步普查的人員共考察了 43 和 44 個調查地點，與 2007 年普查的 44 個調查地點數目相若。由於所有重要的渡冬地都已經覆蓋，漏數一些琵鷺的機會不大。已知的黑臉琵鷺全球數目穩定維持在 2,000 隻的水平，種群總數的 1% 即為 20 隻。因此，有 20 隻或以上黑臉琵鷺越冬的地點可算是這個鳥種的重要棲息地。以下有更多這方面的討論。

台灣

2008 : 1,030 隻 2009 : 1,104 隻

台灣一直是黑臉琵鷺的最大越冬地，其數目在這兩次的普查首度超過 1,000 隻（見表 2），同時比 2007 年普查的數目上升 30%。黑臉琵鷺在台灣最大的越冬地仍是曾文溪口、台南包括七股和四草，在 2008 年和 2009 年分別錄得 1,011 隻和 1,081 隻，佔全球已知總數的 50%-54%。其他的少數則分別於嘉義、宜蘭、高雄、屏東、台東及離岸島嶼包括澎湖、金門等地區錄得（見表 1）。

珠江河口(包括香港和深圳的后海灣，以及澳門氹仔路環)

2008：419 隻，包括后海灣的 369 隻和澳門氹仔路環的 50 隻

2009：387 隻，包括后海灣的 335 隻和澳門氹仔路環的 52 隻

珠江河口的黑臉琵鷺數目在這兩年間有所變化，分別在 2008 年上升 4%，然後在 2009 年下降 8%。以上變化來自后海灣的數目，而澳門氹仔路環的數目則相對穩定。兩次普查所覆蓋的範圍與之前的普查相同，三天的數算包括米埔內后海灣國際重要濕地、落馬洲魚塘區、尖鼻咀潮汐帶、香港濕地公園、以及福田國家級自然保護區。后海灣的總數佔全球黑臉琵鷺數目至少 17%。

雖然澳門氹仔路環的數目相對穩定，該處卻因為旅遊的發展，面臨重大壓力，前景並不樂觀。澳門的總數佔全球黑臉琵鷺數目 2.5%。

中國大陸和海南島

2008：313 隻 2009：247 隻

與珠江河口一樣，中國大陸和海南島的黑臉琵鷺數目在這兩年間有所變化，分別由 2007 年的 247 隻升至 2008 年的 313 隻，然後在 2009 年重回 247 隻的水平。2008 年共錄得 313 隻琵鷺，是中國大陸和海南島的新高數字(見表 4)，根據 2009 年普查，中國大陸和海南島佔全球已知種群至少 12%。

之前的普查發現中國大陸和海南島有三個主要的黑臉琵鷺越冬地：福建興化灣、廣東海豐和海南昌化江口(前稱為北黎灣)。2008 年的普查結果以下：福建興化灣 112 隻、廣東海豐 98 隻、海南昌化江口 82 隻，但是三個地點的黑臉琵鷺在 2009 年的普查顯著減少：福建興化灣 69 隻、廣東海豐 71 隻、海南昌化江口 67 隻。這三個地點和后海灣的黑臉琵鷺數目下跌，導致 2009 年普查全球已知數量下降。除此以外，少量的黑臉琵鷺散佈於中國南部和東南部其他地點，詳情見表 1。

越南紅河口

2008：49 隻 2009：63 隻

越南紅河口黑臉琵鷺的數目已由 2007 年的低位 45 隻回升(表 5)。因應黑臉琵鷺數目在全球整體增長，這個地區的情況可能是自然增長。越南所有的黑臉琵鷺都是在春水國家公園錄得，這種情況確令人對保育黑臉琵鷺以及這個地區的環境感到鼓舞。以上數字佔全球已知數量的 2.5%-3%。2009 年亦有到哈南島進行普查，但沒有發現黑臉琵鷺。

日本

2008：224 隻 2009：215 隻

以往普查中日本錄得越冬琵鷺的最高數字是 2007 年的 189 隻，不過近兩年數目經已突破 200 隻，相繼在 2008 年錄得 224 隻，並在 2009 年錄得 215 隻(表 6)。2007 年至 2008 年間黑臉琵鷺的數目上升 19%，佔全球 10%。最大的群落來自九州島、日本西部以及熊

本縣新港和白川水源河口，單在這個地點，2009 年記錄到 47 隻，而 2009 年也有 39 隻(表 1)。

韓國

2008：28 隻 2009：25 隻

自 2000 年，濟州島一直錄得 20 隻琵鷺(表 7)，近年冬季則有輕微增長，在濟州島的琵鷺都是於城山浦和 Hado-ri 錄得。全球最少有 1%琵鷺利用該島越冬。

泰國

2008：2 隻 2009：3 隻（在普查期間以外錄得）

這兩次的普查中的琵鷺紀錄都是來自碧武里省的 Laem Pak Bia，而過往的普查亦有在同一地區有單隻紀錄，由此顯示有少數的琵鷺可能固定地選擇在該地區越冬。

菲律賓

2008：無紀錄 2009：1 隻（在普查期間以外錄得）

菲律賓沒有固定的黑臉琵鷺報告，因為這裡並非這個鳥種的主要越冬地點，又或者是較少觀鳥人士活躍於國內，所以進行調查的範圍（尤其濕地）並不全面，以致多年來只有少量的琵鷺報告。不過，2009 年 1 月 17 日在菲律賓 Pampanga 省的 Candaba 一片較少受干擾的淡水濕地錄得並拍攝到一隻黑臉琵鷺，故此我們期待日後收到任何來自菲律賓的黑臉琵鷺報告。

總結

最近兩次普查結果顯示，黑臉琵鷺的數目有上升，亦有下降。2008 年升勢強勁，相對 2009 年下降幅度輕微，整體上數目呈上升趨勢。自 1993 年開始的普查，全球總數每年平均都有約 13%的升幅（表 8），這種升勢無疑顯示這個全球瀕危鳥種的數目正穩步復原，不過 2009 年的數目下降，在保育方面來看稍有隱憂。這現象可能與部份一直在華南沿岸越冬的種群轉往台灣和越南紅河口過冬有關，但是日本的越冬種群亦有下降趨勢。另外，沒有跡象顯示 2008 年夏季黑臉琵鷺在韓國繁殖失敗，而普查已經涵蓋所有的主要越冬地點，遺漏一大群渡冬黑臉琵鷺的可能性不大，故此導致上述數目下跌的原因依然未明。

同時，普查仍然顯示 65%-70%的黑臉琵鷺依賴幾個主要的越冬地：台灣台南地區及香港和深圳的后海灣。雖然普查發現日本和華南的數量增加，但是如此的過度集中使這個鳥種很容易受到生態環境質素下降、破壞和傳染病，尤其是鳥類的肉毒桿菌素中毒所威脅。

以下所列出的黑臉琵鷺越冬棲息地，在普查中錄得不少於全球已知總數的 1%（即 20 隻），對保育琵鷺有重要價值：

- 台灣台南曾文溪口,包括七股及四草 - 1,081 隻 (54%),
- 香港和深圳前海灣 - 335 隻 (17%),
- 廣東海豐- 71 隻 (3.6%),
- 福建興化灣- 69 隻 (3.5%),
- 海南島昌化江口- 67 隻 (3.4%),
- 越南紅河口春水國家公園 - 63 隻 (3.2%),
- 澳門氹仔路環 - 52 隻 (2.6%),
- 日本九州島熊本縣新港和白川水源河口- 39 隻(2.0%),
- 日本福岡縣人工島 31 隻 (1.6%),
- 韓國濟州島城山浦及 Hado-ri 漁塘- 25 隻 (1.3%),
- 日本九州島熊本縣鏡川河口- 27 隻(1.4%),
- 日本福岡縣瑞梅寺河今津干瀉 - 21 隻 (1.1%)。

總結來說，黑臉琵鷺種群數目雖然在 2009 年的數目稍為下跌，越冬的琵鷺數目在過去幾年已經大幅增加，在 2008 和 2009 兩年突破二千隻的水平。八十年代後期至今的增長趨勢，對琵鷺的生存十分理想。這個鳥種依賴東亞沿海面積細小的潮汐間濕地，故此生態環境質素的下降和破壞令牠們承受重大壓力。保存潮汐間濕地是保育黑臉琵鷺的重要策略，然而我們對於繁殖季節和棲息地的情形依然不甚了解，這對越冬種群數目有直接影響。在情況許可下，黑臉琵鷺種群的普查應儘快在朝鮮展開。



The International Black-faced Spoonbill Census 2008 and 2009

黑臉琵鷺全球同步普查 2008 及 2009

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鳴謝及參考資料

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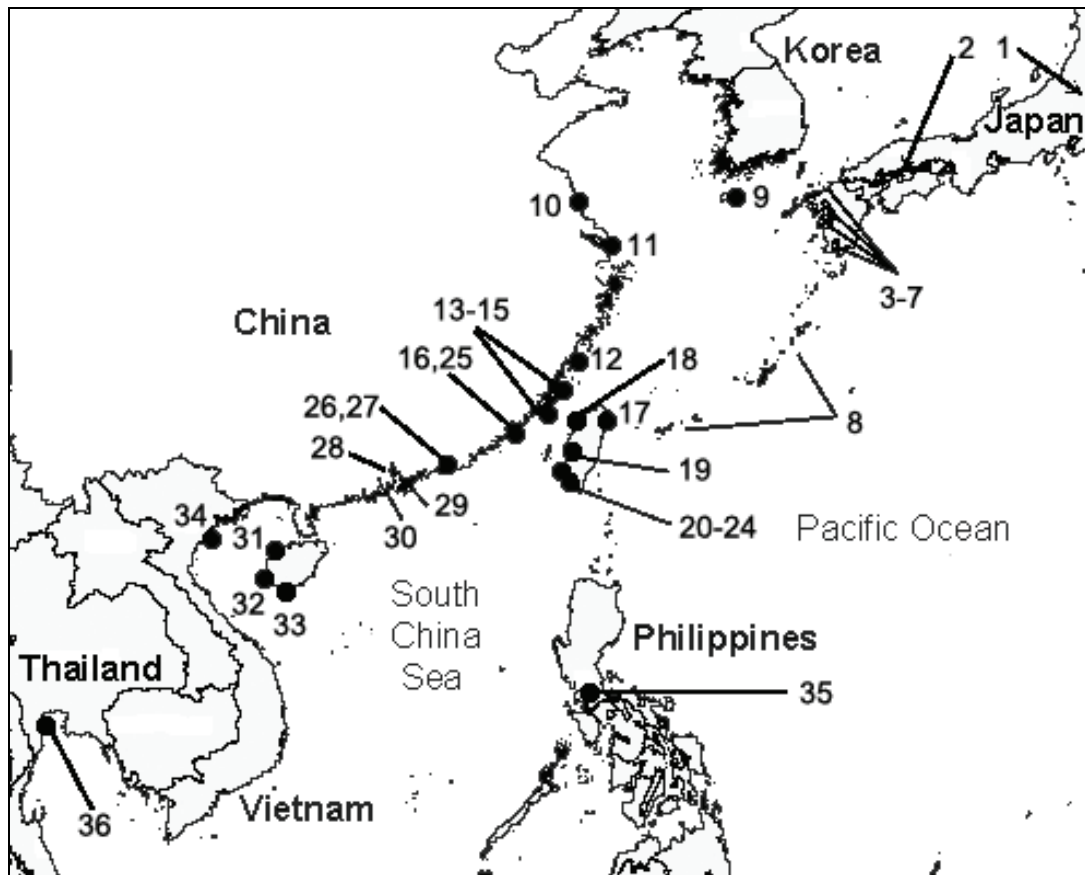
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The International Black-faced Spoonbill Census 2008 and 2009

黑臉琵鷺全球同步普查 2008 及 2009

Map
地圖



Map 1. Locations of wintering Black-faced Spoonbills in winter 2007-08 and 2008-09. 1) Ibaraki, Japan; 2) Ehime, Japan; 3) Fukuoka, Japan; 4) Saga, Japan; 5) Kumamoto, Japan; 6) Miyazaki, Japan; 7) Kagoshima, Japan; 8) Nansei-shoto Islands, Japan; 9) Jeju, Republic of Korea; 10) Yenchang, Jiangsu; 11) Shanghai; 12) Xiapu, Fujian; 13) Fuan, Fujian; 14) Mingjiang estuary, Fujian; 15) Xinhua Bay, Fujian; 16) Zhangpu, Fujian; 17) Ilan, Taiwan; 18) Hsinchu, Taiwan; 19) Chiayi, Taiwan; 20) Tainan, Taiwan; 21) Kaoshiung, Taiwan; 22) Taitung, Taiwan; 23) Pingtung, Taiwan; 24) Penghu, Taiwan; 25) Kinmen, Taiwan; 26) Shantou, Guangdong; 27) Haifeng, Guangdong; 28) Guangzhou, Guangdong; 29) Deep Bay, Hong Kong and Shenzhen; 30) Taipa, Macao; 31) Lingao, Hainan; 32) Changhua River estuary, Hainan; 33) Sanya, Hainan; 34) Xuan Thuy, Vietnam; 35) Pampanga, Philippines; 36) Phatchaburi, Thailand.

地圖 1. 2008 及 2009 冬季年黑臉琵鷺全球同步普查地點: 1) 日本茨城縣; 2) 日本愛媛縣; 3) 日本福岡縣; 4) 日本佐賀縣; 5) 日本熊本縣; 6) 日本宮崎縣; 7) 日本鹿兒島; 8) 日本西南群島; 9) 韓國濟州島; 10) 江蘇鹽城; 11) 上海; 12) 福建霞浦; 13) 福建福安; 14) 福建閩江口; 15) 福建興化灣(福清和莆田); 16) 福建漳浦; 17) 台灣宜蘭; 18) 台灣新竹; 19) 台灣嘉義; 20) 台灣台南(七股和四草); 21) 台灣高雄; 22) 台灣台東; 23) 台灣屏東; 24) 台灣澎湖; 25) 台灣金門; 26) 廣東汕頭; 27) 廣東海豐; 28) 廣東廣州; 29) 香港和深圳后海灣; 30) 澳門路環; 31) 海南臨高; 32) 海南昌化江口; 33) 海南三亞; 34) 越南紅河口春水; 35) 菲律賓 Pampanga; 36) 泰國碧武里。



The International Black-faced Spoonbill Census 2008 and 2009

黑臉琵鷺全球同步普查 2008 及 2009

Tables

表

Table 1. Number of Black-faced Spoonbills in different locations of East Asia, winter 2007-2008 and 2008-09. Numbers in parenthesis are extra birds counted outside the census period.

表 1. 2007-08, 2008-09 年冬季東亞各地的黑臉琵鷺數量

Region 地區	Location 地點	2008	Number 數量	2009	Number 數量	Reported by 普查員 / 記錄者
China mainland 中國大陸	Yenchang, Jiangsu 江蘇 鹽城	Unknown date 不詳	(1)	Nil	Nil	Zhang Lin 章麟
China mainland 中國大陸	Chongming Dongtan, Shanghai 上海 崇明東灘	Nil	Nil	30 Dec 2008 12 月 30 日	(2)	Choi Chi-yeung 蔡志揚
China mainland 中國大陸	Nanhui, Shanghai 上海 南匯	15 Jan 1 月 15 日	(2)	10-11 Jan 1 月 10-11 日	0	Choi Chi-yeung, Li Jing, Liu Yang, Wang Jiye 蔡志揚, 李靜, 劉揚, 王吉衣
China mainland 中國大陸	Funing Bay, Xiapu, Fujian 福建 霞浦 福寧灣	9 Jan 1 月 9 日	(3)	11 Jan 1 月 11 日	12	Fujian Wildlife and Wetland Resource Monitoring Centre, Fujian Bird Watching Society, Changle Forestry Bureau, Xiapu Forestry Bureau, Yuanxiao Forestry Bureau 福建省野生動物與濕地資源監測中心, 福建 觀鳥會, 長樂林業局, 霞浦林業局, 雲霄林業 局
China mainland 中國大陸	Fuan, Fujian 福建 福安	10 Jan 1 月 10 日	(2)	Nil	Nil	Fujian Wildlife and Wetland Resource Monitoring Centre, Fujian Bird Watching Society, Changle Forestry Bureau, Xiapu Forestry Bureau, Yuanxiao Forestry Bureau 福建省野生動物與濕地資源監測中心, 福建 觀鳥會, 長樂林業局, 霞浦林業局, 雲霄林業 局
China mainland 中國大陸	Minjiang estuary, Fuzhou, Fujian 福建 福州 閩江口	Nil	Nil	9 Jan 1 月 9 日	18	
China mainland 中國大陸	Xinhua Bay, Fuqian/Putian, Fujian 福建 福清/莆田 興化灣	13 Jan 1 月 13 日	112	11 Jan 1 月 11 日	69	
China mainland 中國大陸	Fuan, Zhangpu 福建 漳浦	10 Jan 1 月 10 日	(15)	Nil	Nil	
China mainland 中國大陸	Shantou, Guangdong 廣東 汕頭	11-13 Jan 1 月 11 至 13 日	10	Nil	Nil	Zheng Kanghua 張康華
China mainland 中國大陸	Haifeng, Guangdong 廣東 海豐	12 Jan 1 月 12 日	98	9-11 Jan 1 月 9-11 日	71	Zeng Xianwu, 曾向武
China mainland 中國大陸	Panyu, Guangzhou, Guangdong 廣東 廣州 番禺	Nil	Nil	10 Jan 1 月 10 日	2	Guan Guangwen, Yu Yong, Le Weiqiang, Wang Xiaolan 關廣文, 于勇, 樂偉強, 王曉蘭
China mainland 中國大陸	Houshui Bay, Lingao, Hainan 海南省 臨高 后水灣	11 Jan 1 月 11 日	11	9 Jan 1 月 9 日	8	Chen Wei, Li Hai, Li Shining, Liang Zhenhui, Wang Xueliang, Wang Zhongqi, Wei Zhifeng, Cheung Mok Jose Alberto, Lee Kwok Shing, Tam Yip Shing
China mainland 中國大陸	Changhua River estuary, Dongfang, Hainan	12 Jan 1 月 12 日	82	11 Jan 1 月 11 日	67	

越南	National Park 紅河口 春水國家公園	1月12日		1月10日		Truong
Japan 日本	Honshu: Ibaraki Pref. Hasaki-cho, Shubana Tone River estuary 本州島 茨城縣 波崎町 洲鼻	Nil	Nil	11 Jan 1月11日	1	Shigeru Tokumoto 徳元茂
Japan 日本	Sikoku: Ehime Pref., Kamogawa River estuary, Saijo City 四國島 愛媛縣 西条市 加茂川河口	Nil	Nil	12 Jan 1月12日	1	Takahito Yamamoto 山本貴仁
Japan 日本	Kyushu: Fukuoka Pref., Sone tidal flat, Kusami River, Kitakyusyu City 九州島 福岡縣 朽網河口 曾根干潟	13 Jan 1月13日	1	11 Jan 1月11日	2	Satoshi Takeda, Shungo Takahashi 武田尊史, 橋俊吾
Japan 日本	Kyushu: Fukuoka Pref., Raizan River estuary, Maebaru City 九州島 福岡縣 雷山河口	13 Jan 1月13日	2	11 Jan 1月11日	5	Hiroto Okabe, Mitsumori Tsuchiya 岡部海都, 土谷光憲
Japan 日本	Kyushu: Fukuoka Pref., Karita Reclamation 九州島 福岡縣 苅田埋立地	Nil	Nil	11 Jan 1月11日	1	Satoshi Takeda 武田尊史
Japan 日本	Kyushu: Fukuoka Pref., Zuibaiji River estuary, Imazu tidal flat 九州島 福岡縣 瑞梅寺河 今津干潟	13 Jan 1月13日	28	11 Jan 1月11日	21	Hiroto Okabe 岡部海都
Japan 日本	Kyushu: Fukuoka Pref., Artificial Island reclamation at Wajiro, Fukuoka City 九州島 福岡縣 人工島埋立地	13 Jan 1月13日	26	11 Jan 1月11日	31	Masataka Hanada, Koji Takenaka, Takuro Hattori 花田正孝, 竹中孝司, 服部卓朗
Japan 日本	Kyushu: Fukuoka Pref., Tatara River estuary 九州島 福岡縣 多良川河口	13 Jan 1月13日	17	11 Jan 1月11日	10	Takuro Hattori, Masuko Kinoshita 服部卓朗, 木下マス子
Japan 日本	Kyushu: Saga Pref., Daijugarami 九州島 佐賀縣 大掬堀	13 Jan 1月13日	5	11 Jan 1月11日	5	Yasuo Miyazaki 宮崎八洲夫
Japan 日本	Kyushu: Kumamoto Pref., Arao coast 九州島 熊本縣 荒尾海岸	13 Jan 1月13日	2	11 Jan 1月11日	4	Seizaburo Yasuo, Yukinori Takeshita, Osamu Akune, Kyoto Ikata, Makoto Nishimura 安尾征三郎, 竹下將明, 阿久根修, 井形恭 子, 西村誠
Japan	Kyushu: Kumamoto Pref.,	13 Jan	47	11 Jan	39	Seizaburo Yasuo, Yukinori Takeshita,

日本	Kumamoto New Port & Shira-kawa River estuary 九州島 熊本縣 新港, 白川河口	1月13日		1月11日		Osamu Akune, Kyoto Ikata, Minoru Beppu, Yoshihumi Matsumoto, Masami Ishihara 安尾征三郎, 竹下將明, 阿久根修, 井形恭子, 松本芳文, 別府穰, 石原政末
Japan 日本	Kyushu: Kumamoto Pref., Hi-kawa River estuary 九州島 熊本縣 水川河口	13 Jan 1月13日	4	Nil	Nil	Tadashi Nakao, Kenzaburo Inoue 中尾禎志, 井上賢三郎
Japan 日本	Kyushu: Kumamoto Pref., Kagami River estuary 九州島 熊本縣 鏡川河口	13 Jan 1月13日	26	11 Jan 1月11日	27	Atsuto Hamasuna, Saori Hamasuna, Kazuhiro Matsushita, Kazue Matsushita, Fukiko Yoshida, Tatsuo Yamada, Kenichi Shiraishi 濱砂淳人、濱砂佐織、松下一弘、松下一枝、吉田富雄子, 山田龍雄, 濱沙淳人, 白石健一
Japan 日本	Kyushu: Kumamoto Pref., Mae/Kuma River estuary 九州島 熊本縣 前川/球磨河口	13 Jan 1月13日	6	11 Jan 1月11日	14	Sayo Cyohata, Masahiro, Etho, Shiori Asai, Shigeki Takano, Miwa Iwasaki 丁畑佐代, 江藤正宏, 浅井しおり, 高野茂樹, 岩崎美和
Japan 日本	Kyushu: Miyazaki Pref., Hitotsuse River estuary 九州島 宮崎縣 一瀬川河口	11-13 Jan 1月11-13日	8	11 Jan 1月11日	10	Hiroko Yamaguchi, Hiroshi Yamaguchi, Hiroshige Kubo 山口浩子, 山口廣, 久保寛成
Japan 日本	Kyushu: Kagoshima Pref., Beppu River estuary 九州島 鹿児島 別府川河口	13 Jan 1月13日	15	Nil	Nil	Keiko Miyano 宮野敬子
Japan 日本	Kyushu: Kagoshima Pref., Manose River estuary 九州島 鹿児島縣 萬之瀬河口	13 Jan 1月13日	15	11 Jan 1月11日	15	Hiroshi Kukita, Akira Sakurai, Tsukasa Kamimura 久木田廣, 櫻井曉, 上村司
Japan 日本	Kyushu: Kagoshima Pref., the regulation pond next to Hayato Port 九州島 鹿児島縣 隼人港横調整池	Nil	Nil	11 Jan 1月11日	7	Shuu Miyano 宮野壽
Japan 日本	Kyushu: Kagoshima Pref., Kajikisuzaki regulation pond 九州島 鹿児島縣 加治木須崎調整池	Nil	Nil	11 Jan 1月11日	6	Yoshiteru Tateyama 立山芳輝
Japan 日本	Kyushu: Kagoshima Pref., Asama Tokuno-shima Island 九州島 鹿児島縣 徳之島淺間	Nil	Nil	10 Jan 1月10日	1	Teturyou Fukumoto 福本哲良

Japan 日本	Nansei-shoto Islands: Okinawa Pref., Gushi – tidal flat 西南群島：沖繩縣 豐崎干潟 保榮茂 河口	13 Jan 1 月 13 日	11	Nil	Nil	Kozo Hashimoto, Kamenobu Oshiro, Isamu Matayoshi, Mamoru Chinen, Kouji Shinjo, Mayumi Okamura, Takashi Morikawa, Takako Morikawa 橋本幸三、大城龜信、又吉勇、知念守、新 城公次、岡村まゆみ、森河隆史、森河貴子
Japan 日本	Nansei-shoto Islands: Okinawa Pref., Toyosaki – tidal flat, Bin River estuary 西南群島：沖繩縣 豐崎干潟 保榮茂 河口	13 Jan 1 月 13 日	1	11 Jan 1 月 11 日	7	Kozo Hashimoto, Kamenobu Oshiro, Isamu Matayoshi, Mamoru Chinen, Kouji Shinjo, Mayumi Okamura, Takashi Morikawa, Takako Morikawa 橋本幸三、大城龜信、又吉勇、知念守、新 城公次、岡村まゆみ、森河隆史、森河貴子
Japan 日本	Nansei-shoto Islands: Okinawa Pref., Tomigusuku, Yone-Shankaku-ike Pond 西南群島：沖繩縣 與根三角池	13 Jan 1 月 13 日	3	11 Jan 1 月 11 日	3	Kozo Hashimoto, Kamenobu Oshiro, Isamu Matayoshi, Mamoru Chinen, Kouji Shinjo, Mayumi Okamura, Takashi Morikawa, Takako Morikawa, Kouji Shinjo, Yasuko Tomishima 橋本幸三、大城龜信、又吉勇、知念守、新 城公次、岡村まゆみ、森河隆史、森河貴子 新城公次、富島靖子
Japan 日本	Nansei-shoto Islands: Okinawa Pref., Awase River estuary 西南群島：沖繩縣 泡瀬干潟	13 Jan 1 月 13 日	4	11 Jan 1 月 11 日	5	Masakuni Yamashiro 山城正邦
Japan 日本	Nansei-shoto Islands: Okinawa Pref., Nagura Amparu, Ishigakijima- Island 西南群島：沖繩縣 石垣島 名藏	13 Jan 1 月 13 日	1	Nil	Nil	Kunitaro Miyagi, Yasuko Miyagi 宮城國太郎, 宮城靖子
Republic of Korea 韓國	Seongsanpo and Hado-ri fishponds, Jeju 濟州 城山浦及 Hado-ri 魚塘	11-13 Jan 1 月 11 至 13 日	28	9-11 Jan 1 月 9 至 11 日	25	Choi Chang-yong
Philippine 菲律賓	Candaba, Pampanga	Nil	Nil	17 Jan 1 月 17 日	(1)	Via Carlo Custodio and Mike Lu
Thailand 泰國	Laem Pak Bia, Phatchaburi 碧武里	13 Jan 1 月 13 日	2	29 Dec 2008 12 月 29 日	(3)	Pinit Sanghaew via Uaiphorn Khwanphae
Total			2065 (26)		2041 (6)	

Table 2. Numbers of Black-faced Spoonbills in Taiwan during the international censuses.

表 2. 全球同步普查期間在台灣錄得的黑臉琵鷺數量

Year	89-90	93-94	94-95	95-96	Jan 97	Jan 98	Jan 99	Jan 00
Total	150	206	286	300	298	363	380	380

Year	Jan 01	Jan 02	Jan 03	Jan 04	Jan 05	Jan 06	Jan 07	Jan 08	Jan 09
Total	427	582	580*	632	757	826	790	1030	1104

* This number also included 18 injured and sick individuals from the outbreak of avian botulism.

Table 3. Numbers of Black-faced Spoonbills in the Pearl River Estuary during the international censuses.

表 3. 全球同步普查期間在珠江河口錄得的黑臉琵鷺數量

Year	89-90	93-94	94-95	95-96	Jan 97	Jan 98	Jan 99	Jan 00	Jan 01
Hong Kong	50	70	78	99	69	88	96	90	135
Shenzhen	nc	nc	nc	nc	32	58	nc	nc	42*
Macao	6	12	8	10	13	9	12	6	36
Total	56	82	86	109	114	155	108	96	171*

Year	Jan 02	Jan 03	Jan 04	Jan 05	Jan 06	Jan 07	Jan 08	Jan 09
Hong Kong	136	179	238	272	296	320	331	273
Shenzhen	3	24	5	39	50	36	38	62
Macao	37	46	50	39	51	48	50	52
Total	176	249	293	350	397	404	419	387

nc = no count, *Forty-two birds in Futian was not included in the total number because counts in Mai Po and Futian were not taken simultaneously.

Table 4. Numbers of Black-faced Spoonbills in China Mainland (exclude Futian, Shenzhen) and Hainan Island during the international censuses.

表 4. 全球同步普查期間在中國大陸及海南島錄得的黑臉琵鷺數量

Year	89-90	93-94	94-95	95-96	Jan 97	Jan 98	Jan 99	Jan 00	Jan 01
Total	15	22	21	21	58	5	3	9	72

Year	Jan 02	Jan 03	Jan 04	Jan 05	Jan 06	Jan 07	Jan 08	Jan 09
Total	24	17	91	187	206	247	313	247

Table 5. Numbers of Black-faced Spoonbills in Red River Delta, Vietnam during the international censuses.

表 5. 全球同步普查期間在越南紅河口錄得的黑臉琵鷺數量

Year	89-90	93-94	94-95	95-96	Jan 97	Jan 98	Jan 99	Jan 00	Jan 01
Total	62	25	23	75	nc	59	34*	46*	47

Year	Jan 02	Jan 03	Jan 04	Jan 05	Jan 06	Jan 07	Jan 08	Jan 09
Total	54*	65*	15	56	74	45	49	63

nc = no count, * Surveys also included Thai Binh and other places in the Delta.

Table 6. Numbers of Black-faced Spoonbills in Japan during the international censuses.

表 6. 全球同步普查期間在日本錄得的黑臉琵鷺數量

Year	89-90	93-94	94-95	95-96	Jan 97	Jan 98	Jan 99	Jan 00	Jan 01
Total	5	16	14	31	28	75	60	99	87

Year	Jan 02	Jan 03	Jan 04	Jan 05	Jan 06	Jan 07	Jan 08	Jan 09
Total	107	128	149	103 (47)	155	189	224	215

Number in parenthesis is the birds recorded outside but closed the census period.

Table 7. Numbers of Black-faced Spoonbills in Jeju Island, Republic of Korea during the international censuses.

表 7 全球同步普查期間在韓國濟州島錄得的黑臉琵鷺數量

Year	89-90	93-94	94-95	95-96	Jan 97	Jan 98	Jan 99	Jan 00	Jan 01
Total	6	nc	nc	15	16	25	14	20	21

Year	Jan 02	Jan 03	Jan 04	Jan 05	Jan 06	Jan 07	Jan 08	Jan 09
Total	29	22	23	21	21	20	28	25

nc = no count

Table 8. Numbers and percentage increase of total number of Black-faced Spoonbills during the international censuses.

表 8 全球同步普查的黑臉琵鷺總數及百分比增加

Year	89-90	93-94	94-95	95-96	Jan 97	Jan 98	Jan 99	Jan 00	Jan 01
Total	294	351	430	551	535	613	586	660	828
% increase	-	19.4	22.5	28.1	-2.9	14.6	-4.4	12.6	25.5

Year	Jan 02	Jan 03	Jan 04	Jan 05	Jan 06	Jan 07	Jan 08	Jan 09
Total	969	1069	1206	1475	1679	1695	2065	2041
% increase	17.0	10.3	12.8	22.3	13.8	1.0	21.8	-1.2

Mean % increase (SD): 13.3 (10.3)



The International Black-faced Spoonbill Census 2008 2009

黑臉琵鷺全球同步普查 2008 及 2009

Figures

圖

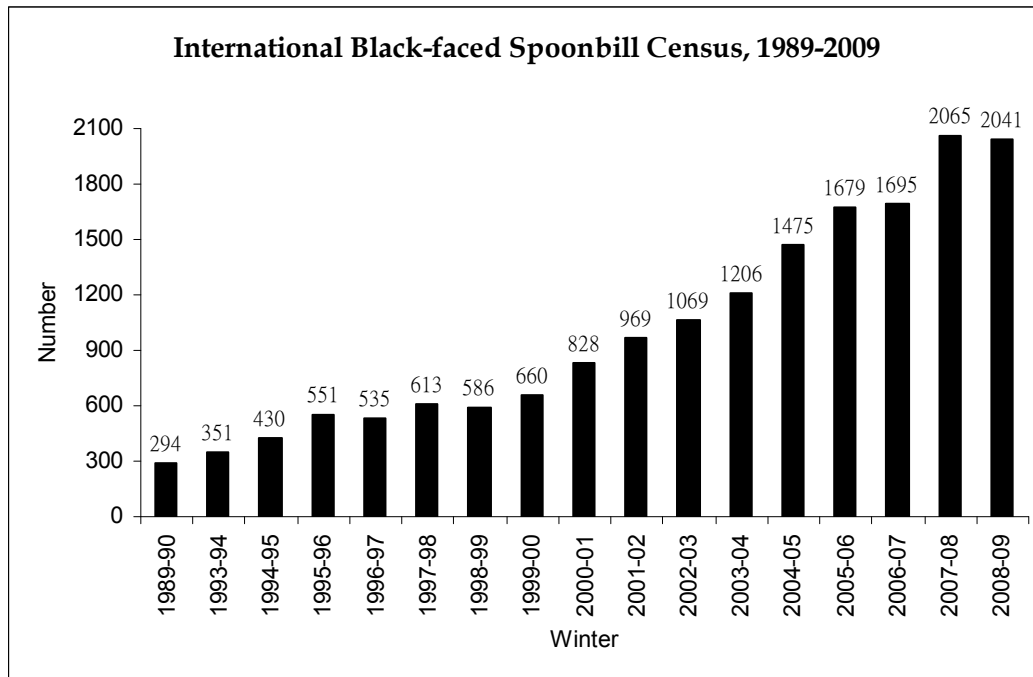


Figure 1 Known wintering Black-faced Spoonbill populations from winter 1989-90 to 2008-09.

圖 1. 1989-90 至 2008-09 年冬季已知的黑臉琵鷺數量

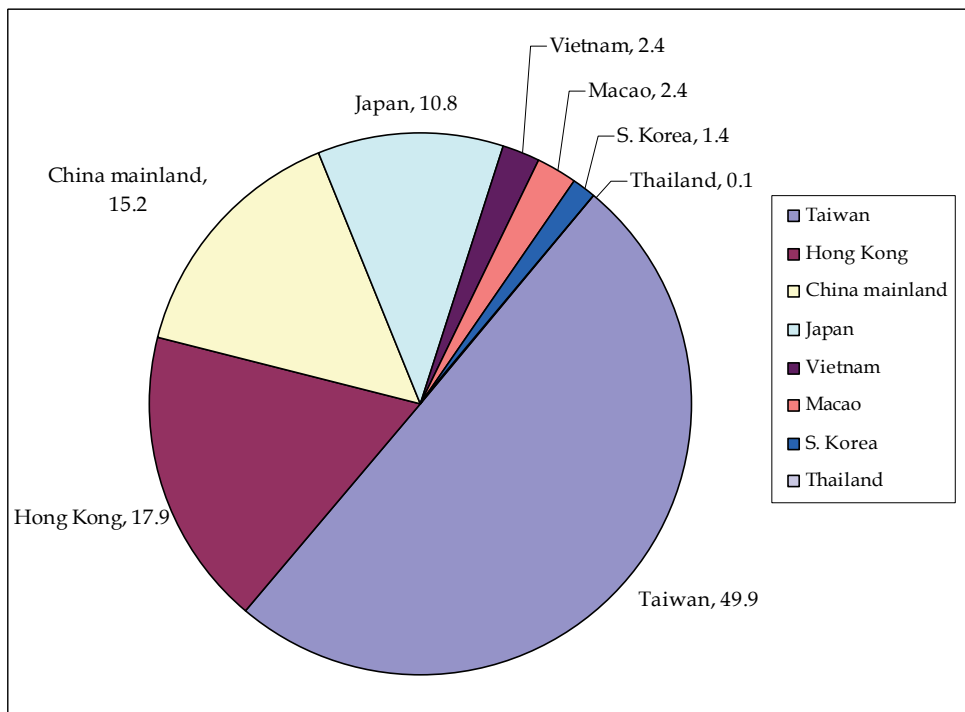


Figure 2a. Percentages of Black-faced Spoonbills in different wintering areas during the 2008 international census.

圖 2a. 2008 全球同步普查期間黑臉琵鷺在不同越冬地的全球百分比

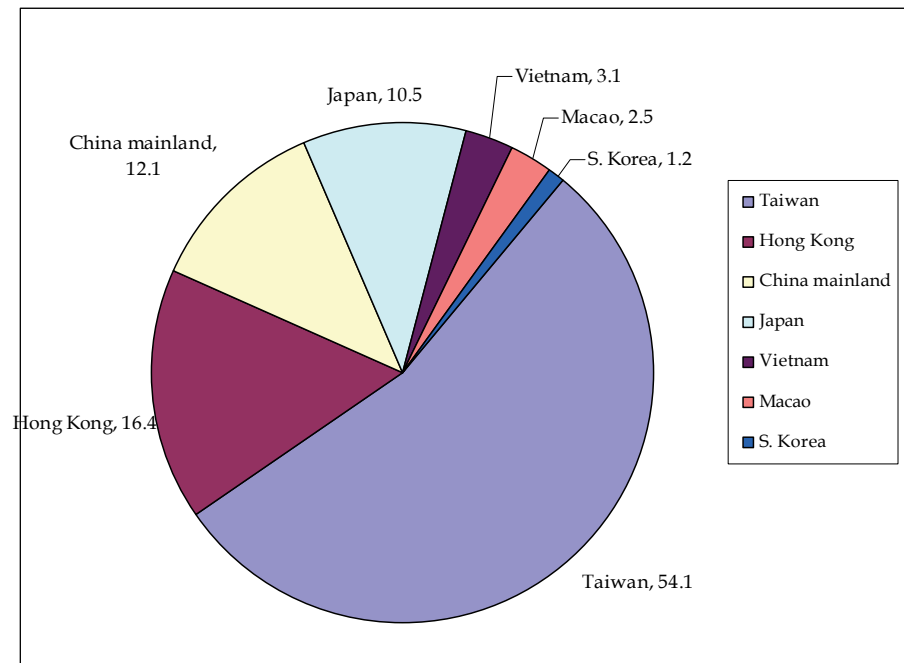


Figure 2b. Percentages of Black-faced Spoonbills in different wintering areas during the 2009 international census.

圖 2b. 2009 全球同步普查期間黑臉琵鷺在不同越冬地的全球百分比

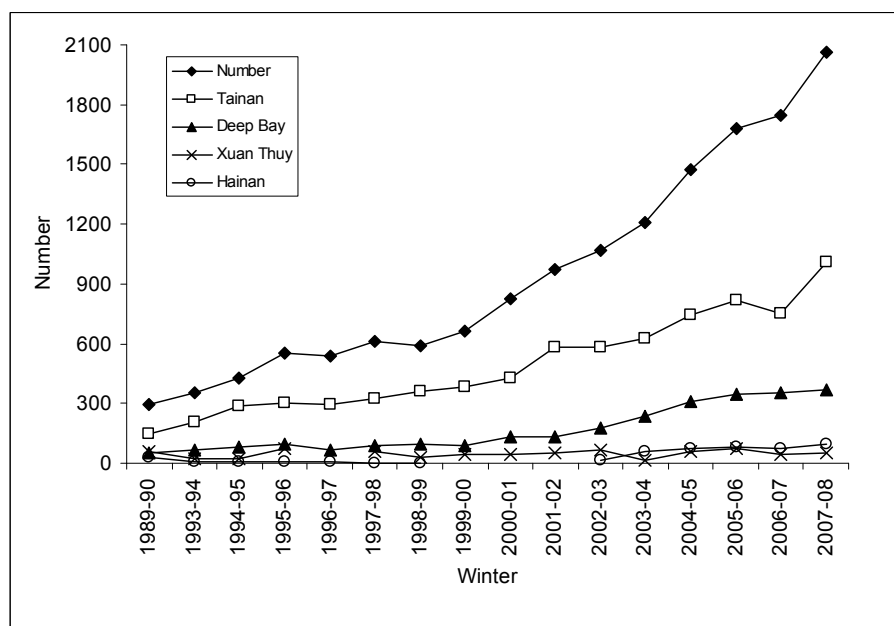


Figure 3. Trends of known Black-faced Spoonbills in the world, in three traditional important congregation sites: Tainan of Taiwan, Deep Bay of Hong Kong and Shenzhen, Red River Delta of Vietnam, and a new site at Hainan Island, China from the international censuses. Numbers were based on a review by Kennerley (1990) and table 3, 4 and 6.

圖 3. 比較全球同步普查的已知黑臉琵鷺數量，以及三個重要聚集點（台灣台南、香港深圳后海灣和越南紅河口）及海南島最近發現地點的數量趨勢



The International Black-faced Spoonbill Census 2008 and 2009

黑臉琵鷺全球同步普查 2008 及 2009

Appendices

附錄

Appendices

Appendix 1. Counts in Deep Bay, Hong Kong and Shenzhen during the International Black-faced Spoonbill Census 2008. NC – no count.

a) Counts on 11 January 2008

Place/Time	1200h	1300h	1400h
Mai Po Nature Reserve and boardwalk	167	188	156
Lok Ma Chau	2	2	2
Nam Sang Wai	NC	NC	NC
Tsim Bei Tsui area, including environs of Wetland Park	56	56	54
'Outer' Deep Bay	3	2	2
Futian	NC	111	NC
Total	228	359	214

b) Counts on 12 January 2008

Place/Time	1230h	1330h	1430h
Mai Po Nature Reserve and boardwalk	103	235	236
Lok Ma Chau	4	5	6
Nam Sang Wai	21	23	21
Tsim Bei Tsui area, including environs of Wetland Park	65	65	63
'Outer' Deep Bay	7	3	5
Futian	38	38	38
Total	238	369	369

c) Counts on 13 January 2008

Place/Time	1300h	1400h	1500h
Mai Po Nature Reserve and boardwalk	180	123	89
Lok Ma Chau	0	0	0
Nam Sang Wai	28	0	0
Tsim Bei Tsui area, including environs of Wetland Park	46	47	61
'Outer' Deep Bay*	1	1	0
Futian	27	30	30
Total	282	201	180

Appendix 2. Counts in Deep Bay, Hong Kong and Shenzhen during the International Black-faced Spoonbill Census 2009. NC – no count..

a) Counts on 9 January 2009

Place/Time	1600h	1700h	1800h
Mai Po Nature Reserve and boardwalk	224	199	252
Woo Sang Wai	0	0	0
Lok Ma Chau	0	0	1
Nam Sang Wai	NC	NC	NC
Tsim Bei Tsui area, including environs of Wetland Park	27	28	20
'Outer' Deep Bay	2	0	0
Futian	28	45	62
Total	281	272	335

b) Counts on 10 January 2009

Place/Time	1600h	1700h	1800h
Mai Po Nature Reserve and boardwalk	153	82	69
Woo Sang Wai	0	0	3
Lok Ma Chau	0	0	12
Nam Sang Wai	32	21	3
Tsim Bei Tsui area, including environs of Wetland Park	17	37	26
'Outer' Deep Bay	0	0	0
Futian	70	63	62
Total	272	203	175

c) Counts on 11 January 2009

Place/Time	1030h	1130h	1230h
Mai Po Nature Reserve and boardwalk	139	127	131
Woo Sang Wai	0	0	0
Lok Ma Chau	29	28	23
Nam Sang Wai	35	47	51
Tsim Bei Tsui area, including environs of Wetland Park	37	35	41
'Outer' Deep Bay*	0	0	0
Futian	48	49	50
Total	288	286	296